

# ILLINOIS AGRICULTURIST



Fifty-Fourth Year

OCTOBER, 1949

Member of A.C.M.A.

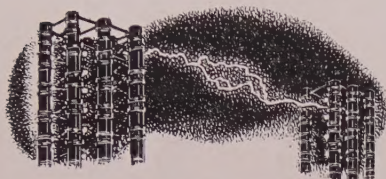
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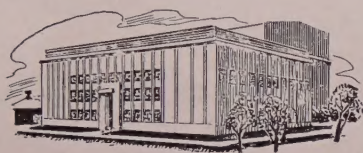




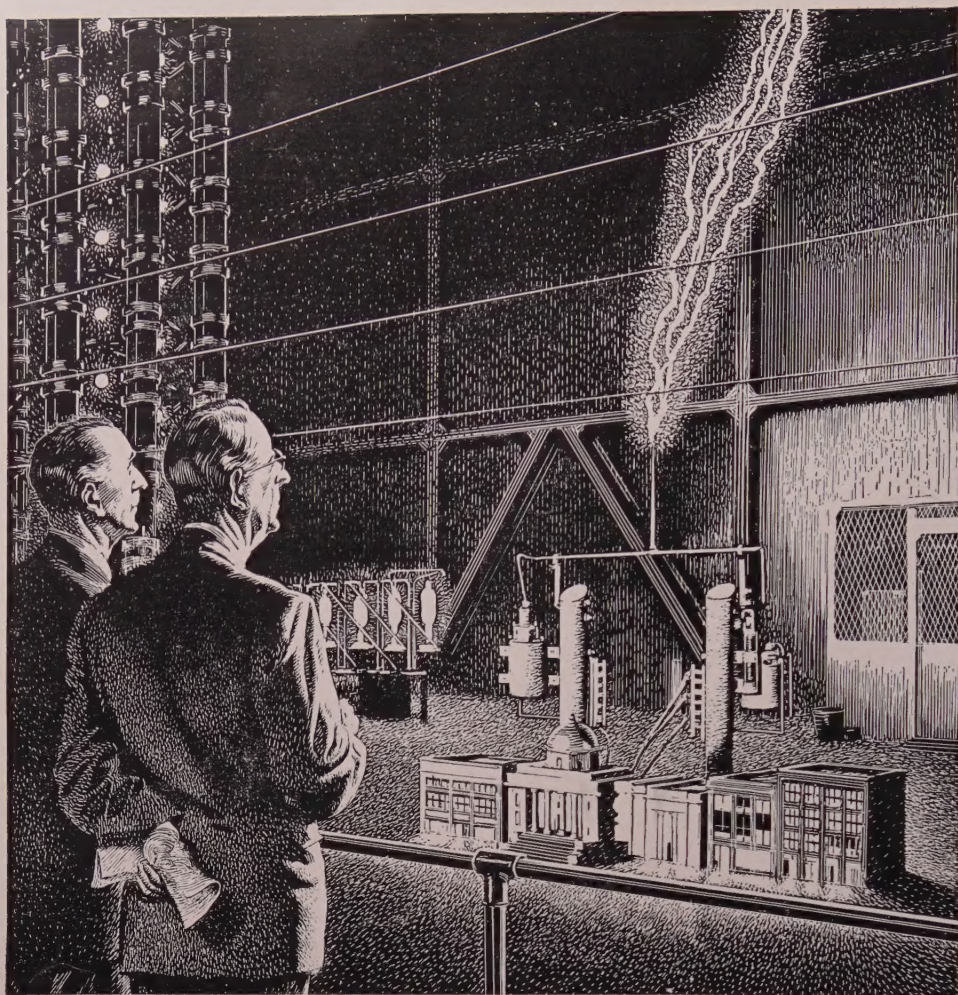
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Facts like these are part of the working knowledge of the engineers in General Electric's High Voltage Engineering Laboratory in Pittsfield, Mass. It's their

job to develop lower-cost equipment that will better withstand lightning and that will better protect electric service against it.

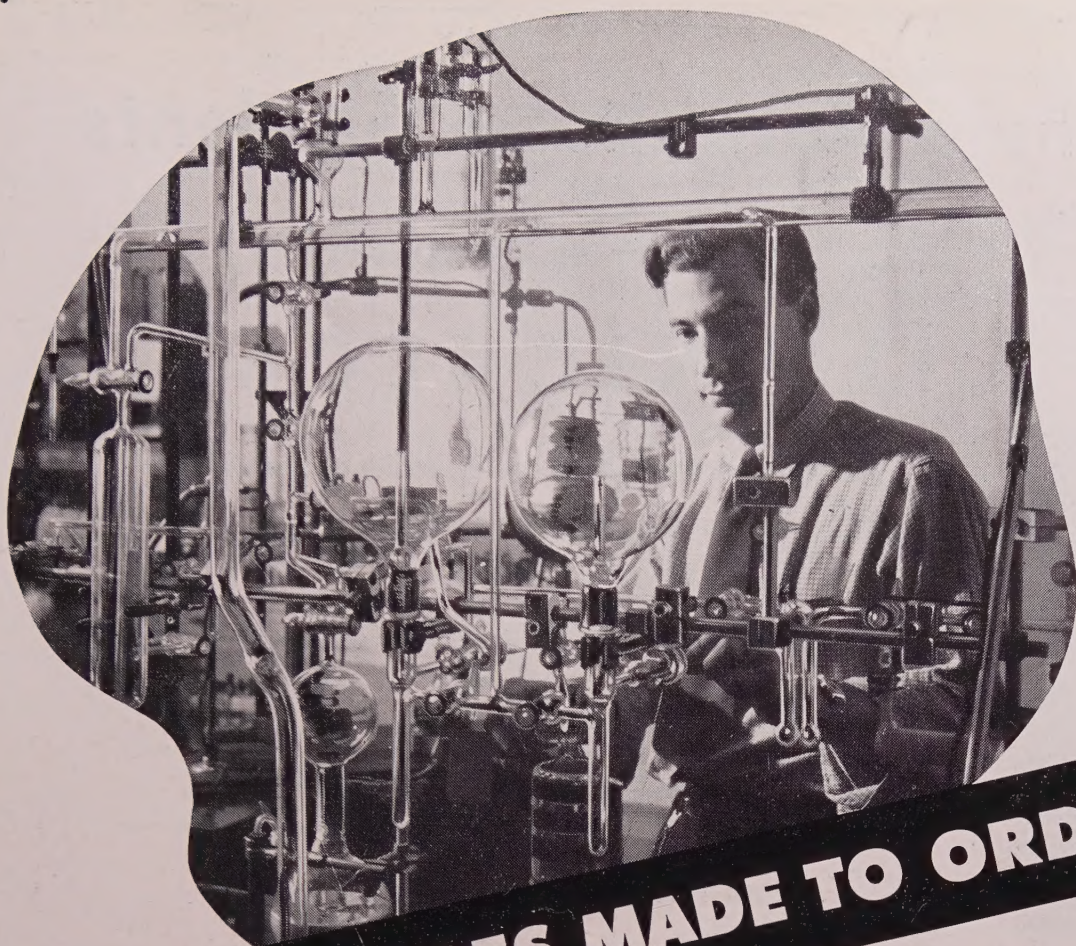
To aid these specialists, General Electric recently equipped them with a new laboratory, the world's largest lightning center. One of the main tools: the most powerful man-made lightning ever produced, rivalling the force of natural bolts, adding further to our knowledge of this “weapon of the gods.”

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# THE ILLINOIS AGRICULTURIST

ESTABLISHED 1896

Member Agricultural College Magazines Associated

OCTOBER, 1949

Volume LIV

Number 1

Published six times yearly by students in Agriculture and Home Economics at the University of Illinois

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## OUR PLATFORM

To acquaint students and faculty in the College of Agriculture, agricultural leaders, and the rural people of Illinois with the latest scientific developments in agriculture and home economics.

To report events of general interest on the College of Agriculture campus.

To serve as a means of training agricultural and home economics students in journalism and business administration.

To promote the best interests of agricultural and home economics students on the campus of the University of Illinois.

## Going Forward . . .

Not long ago I was listening to a talk in which the speaker was devoting extensive explanation to the word "progress." "Often people consider change and progress to be synonymous," said the speaker, but really changes do not cause progress any more than progress causes changes." Then I began wondering about changes that come about in the AGRICULTURIST.

Each fall there is a new group of editors responsible for bringing the AGRICULTURIST to you. They continue some old methods and also adopt some new methods. Do these changes only satisfy the desires of the staff or are they a factor of progress on behalf of the magazine?

With new staffs you often hear such comments as "I wonder what the AGRICULTURIST will be like this year?", or "Well, that's a big improvement!", or you might even hear something like, "Well, Joe, the AGRICULTURIST is not what it used to be." Comments or no comments, we aren't particularly concerned about how progress comes about so long as the AGRICULTURIST does progress and advance in its own realm.

The present staff is highly inspired to do a top job in bringing out this year's volume of the magazine. Perhaps these are no drastic changes from previous years, but we want to emphasize that in promoting a progressive magazine we must adhere closely to at least four consequential measures to bring you the magazine of your wishes and to realize our platform.

First, we will select impartially our material and treat it with an unprejudiced judgment.

Secondly, in order to satisfy our audience we will select material to interest our largest number of readers.

Third, we want to be accurate.

And fourth, we hope to bring you interesting news, features, and general information to weave into your leisure reading.

These are some of our mainstays. If you have any suggestions concerning the making of a more progressive, growing AGRICULTURIST, we will appreciate receiving them. Our staff which is divided into editorial, business, and circulation can always enlarge; so, as a student in the College of Agriculture desiring to contribute to your ag magazine, feel welcome to come join us.

Also, with our office now conveniently located in the center of ag college activities we want faculty, students, and all to feel welcome to visit us in our office, room 326. Perhaps while at the same time you could give us a lead for a story or some information. However, if not, come in and visit us anyway.

We, the staff of '49-'50, pledge ourselves to make this a year of progress with numerous accomplishments in the ILLINOIS AGRICULTURIST. We're thriving—not dying!

**OUR COVER:** With October comes witches, and goblins, and corn shocks, and all. We wonder what the Old Witch has up her sleeve now.





This is a view showing some of the mums grown in the University's floriculture greenhouses. This is just a part of the mums that can be seen at the mum show.

For You . . .

## Bigger and Better Mums

*As Students Continue Plant Breeding*

By Patrick Miller

The annual chrysanthemum show attracts 5,000 or more visitors in November to the Floriculture Greenhouses. Many of the chrysanthemums on display are the results of plant breeding which has been done by floricultural students first under the guidance of Professor H. B. Dorner who initiated the work. Later S. W. Hall, professor of floriculture, continued the program, and now J. R. Culbert, assistant professor of floriculture, assists and guides the students in their work.

Formerly the students selected their own parent plants for each hybridization attempt. Now the parents are selected by Culbert in an attempt to duplicate in the resulting seedling the desirable growth, flowering, and production habits that the selected parents possess.

### Preparation for Crossing

To prepare the flower which is to grow the seeds, the petals are carefully clipped very closely, and the center part of the flower is removed to prevent self-pollination. Ripe pollen is removed from the anther of the male or pollen parent and put on the stigma of the female or seed parent with a camel's hair brush. This operation is best done on a sunny

day when the sun makes the pollen easy to handle. A paper bag covers the bloom to prevent pollination by wind or insects until fertilization has taken place.

### Results are Highly Variable

This past year, 175 crosses were made, and seeds resulted from 142 of these producing 4,800 seedlings, a much larger number of seedlings than in any previous year. One cross resulted in 283 seedlings alone and one person produced 500 seedlings from seven crosses. Another person obtained 415 seedlings from eight crosses, while another obtained only thirteen seedlings from eight crosses.

Seedlings from a single cross will vary much in color and form. From a typical cross came 134 seedlings of which there were 12 with white flowers, 47 pinkish-white, two yellow, eight yellow-bronze, thirteen bronze, five reddish-bronze, 42 pink, and five with purple flowers.

Seeds of each cross are kept separate. In March, the students plant the seed in flower pots, transplant the seedlings to two and one half inch pots, and later to four inch pots in which they flower the November following the November when the cross was made. Any seedling show-

ing good new color or flower shape or other desirable characteristics will be kept and new plants just like it will result from cuttings taken from this plant. The rest of the plants are discarded. Continuous selection and discarding goes on year after year. Often it is six to ten years after a cross is made that a seedling of all the hundreds produced in a year will be judged ready and acceptable to be introduced to the commercial chrysanthemum growers.

Six of these new chrysanthemum varieties developed by the students will be sent out into the florists' trade in the spring of 1950. These varieties were selected by a committee representing all branches of the florists' industry, which examined and evaluated all the mum seedlings in November 1948.

Formerly new varieties were released to any Illinois florist who asked for them, but these new varieties have been released only to the Illinois State Florists' Association. This organization has designated certain of its members who will work up the stock and sell cuttings to the trade. As commercial chrysanthemum plants are grown from cuttings, not seeds as in most plants, a royalty will be charged on each cutting of these new varieties. This money will be used for research in the floricultural field here at the University.

To date 67 of these student varieties have been introduced to the trade. One of the best of these, which is still grown largely from coast to coast, is Masterpiece. This is a pink pompom type resulting from a cross made in 1926 by the mother of Joan Sibbitt who is now enrolled in Floriculture.

### Illini Varieties to be Introduced

New varieties to be introduced in the spring of 1950 are: Illini Warrior—by George Harms, '43—a bright orange pompon. He also obtained Illini Brave which is a yellow pompon about two inches in diameter.

Illini Honey—by Boyd Kuechenmeister, '43—a honey colored pompon and a one inch sized flower.

Illini Redhead—by Julius Fitz, '41—a dark red decorative pompon.

Illini Snowdrift—by George Park, '41—a white flower when fully open but the center is a restful yellow when immature and the petals are fringed giving a spidery effect.

And Illini Bountiful—by Harold Cope-land—a white pompon with deep cream center and about two inches in diameter.

It may be seen that six to seven years often are required before a variety is released to the industry even if it does survive the competition of hundreds of other seedlings resulting each year. Therefore, a student must wait till after graduation to see if his cross made in class work will result in a commercial variety. Since new varieties are needed constantly—the work continues.



## LET'S "SPRUCE UP" WITH A WINDBREAK

By Robert Hoffman

When the raw cold winds come beating at our doors this winter, many of us will realize that we need something to break the force of the wind which blows almost continually throughout the winter.

One man who recognized this fact three years ago was Dave Lawson of Mercer county who "spruced up" his grandfather's farm before moving on it last spring.

Dave, a graduate of the University, planted three rows of Norway spruce on the north and west side of the buildings and within 5 to 10 years he is sure to have not only protection from the wind, but a beautiful background for his farm as well.

In the planning of this windbreak project, Dave worked with and received assistance from the University's department of forestry through his farm adviser.

Benefits from windbreaks are very numerous, and only a few of the major points can be presented here.

One of the major benefits is that of shelter, which is provided for both house and barn if the windbreak is planted and cared for properly. The house will be less costly to heat, and it will be more comfortable.

In the barns and sheds farmers cannot install oil burners or furnaces to keep their cattle and swine warm, so the most economical and practical way to stop the penetrating winter wind is to prevent it from gaining entrance through the openings and cracks of the buildings. You ask, "How can this be done?" The answer is very simple, "Plant an evergreen windbreak."

Not only will the temperature conditions be more comfortable for the livestock in the barns and feedlots, but it will also provide more comfort for men working in these places. Comfort for women, which of course is more important, will also be better in their work such as hanging out clothes and other out-of-doors activities.

With the use of various species of trees, which offer contrasting color schemes, the landscape of the farmstead will be greatly improved. With the improvement of the landscape features the value of the farm will also be increased.

Almost everyone enjoys some birds and other forms of wildlife on their farm. During the first few years the planting area may supply good nesting cover for game and certain ground-frequenting song birds. As the trees become larger they become increasingly valuable to tree-nesting birds including mourning doves. Squirrels make use of

larger windbreaks, especially if suitable nest boxes are provided. Quails, pheasants, and rabbits also take shelter in a windbreak occasionally.

### Growth Is Not Slow

The growth of an evergreen windbreak is not a slow process as many people believe. Most of the windbreak trees may be expected to increase in height an average of one foot per year throughout their lives. For the first 20 years some trees may grow as much as three feet a year, variations in growth depending on seasons, soil, and moisture conditions and care. With these figures in mind we can easily see that in only five to seven years a windbreak planting will begin to give shelter to the farmstead and also add beauty to the landscape.

Some persons who are not well acquainted with evergreen trees and their rates of growth would rather plant Chinese elm, Lombards poplar or soft maple to make a showing more quickly. Although their growth is rapid, these species do not make satisfactory windbreaks or even good, permanent shade. Because their wood is weak, they are subject to ice and wind damage. Lacking foliage during winter months, they fail to furnish protection when it is most needed.

### Choose Way to Start

In starting the project we can choose one of two ways — the quickest and most expensive way, or the slower and cheaper method.

For older folks the first way would be the best, because you will purchase trees that have been baled and burlapped, and thus receive benefits almost immediately. These trees will average about two and a half feet in height and will be more costly.

The second method of starting a project provides an excellent opportunity for youth to cooperate with their parents. Small seedlings can be purchased very cheaply and planted in the garden. After one or two years these young trees may be transplanted to the area where the windbreak is to be located.

In recent years many well-planned projects have been started by 4-H clubs and vocational agriculture instructors. Statistics show that in 46 counties in Illinois, there have been 4-H windbreaks planted, and in 52 counties vocational agriculture instructors have started windbreaks. Also there is usually one windbreak project in each county every year which is sponsored by the county and is carried out by its farm adviser.

Careful consideration must be given

to the proper time of year to plant and the best location for your windbreak. In planting, the early spring is considered the best time, although many people start windbreak projects in the fall of the year.

In locating the windbreaks there are three major points that must be considered.

Locate away from buildings; at least 50 feet — 100 feet is a better distance if room is available. Where possible the end of the windbreak should extend 50 feet past the line of the last building to be protected.

Watch for drainage problems, especially around barns where manure acids may come in contact with the trees. Low spots are also bad because they are usually too moist for good growing conditions in evergreens.

Keep your windbreak solid without any openings if possible. Occasionally a lane or a driveway will split up a windbreak.

### Some Species More Desirable

Various species of evergreens are suitable for growing in Illinois, but Norway spruce and Douglas fir are most desirable for the northern two-thirds of the state; whereas, Loblolly, Virginia and red pine are best for the southern one-third of the state.

A better landscape effect can be had if more than one specie is planted in the windbreak. In Northern Illinois, white spruce, black hills spruce, blue spruce, red, white and Austrian pine are exceptionally good for intermixing. Red, jack, and white pine and red cedar (outside of the apple orchard areas) are used in the southern one-third of the state.

### Where to Obtain Trees

The most desirable time for ordering trees is in the fall or early winter and they may be ordered from a local nursery, state-operated nursery or nurseries from outside the state. When trees are obtained from a local nursery, there is a limited supply and usually the trees are baled and burlapped.

In vocational agriculture and 4-H club projects, bare-root pine species are available from forest nurseries outside of Illinois. Inquiry should be made to the forestry department of the University of Illinois.

An important step that must be carried out throughout the life of the windbreak is proper care. Be sure to keep livestock and chickens out of the windbreak at all times and also to keep a good mulch (ground cobs or straw) around the trees in the early years. If these points are carried out, anyone can have a windbreak which will grow rapidly and will require little care in cultivating.

Windbreaks are simple to plant, very inexpensive, easy to take care of, and they provide many benefits for the farmer.

Mr. Farmer, take a look at your farmstead — "could you use a windbreak?"



**Start of Civilization . . .**

# THE FIRST COOKBOOK

By Koreen Krapf

Contrary to public opinion, cooking vegetables only a short time is not a new discovery. Two hundred years ago, in 1745, a brave woman recommended just that method and other supposedly "modern" ideas in a cookbook. This cookbook was the only one in the 18th century written by a woman.

Its author is Hannah Glasse, then habit-maker to the royal family, who also taught cooking to young girls. In doing so, she said that she didn't pretend to teach good cooks, but that her "design" was to teach the ignorant and unlearned.

She believed that every person who could read was capable of becoming a good cook. Mrs. Glasse wouldn't direct a lady in the "economy of her family," for she felt that every mistress knew—or ought to know—what was proper. She would not tell them how to set a table because she regarded that impertinent and insulting a woman's judgment. Her real purpose was to improve the servants and save the ladies much trouble.

Standards of the time kept Mrs. Glasse from signing her name as author. The first six editions were written "by a lady." Although its content is amusing now, the recipes were very useful and popular in their day. They included such things as "keeping green peas till Christmas" and "preventing infection among horned cattle."

## Measurements in 1745

Interesting in proportions is this old recipe for "a standing crust for pies:"

"Take a peck of flour, and six pounds of butter, boiled in a gallon of water, skim it off into the flour, add as little of the liquor as you can, work it well into the flour into a paste, then pull it into pieces till it is cold, then make it up in what form you will have it. This is fit for the walls of a goose pye."

One of the odd recipes is for preserving cockscombs. It is:

"Let them be well cleaned, then put them into a pot, with some melted bacon, and boil them a little. About half an hour after, add a little Bay Salt, some pepper, a little vinegar, a lemon sliced, and an onion stuck with cloves. When the bacon begins to stick to the pot, take them up, put them into the pan you would keep them in, lay a clean linen cloth over them, and pour melted butter clarified over them, to keep them closed from the air. These make a pretty plate at a supper."

Other odd foods include ell, larks, ox-palates, walnut water, and green gooseberries. Nevertheless, the pioneers had many foods found in our diets today—steaks, apple and cherry pie, lobster, asparagus, red cabbage, or meat pies.

In a special section for captains of ships is a recipe for catchup to keep 20

years. It includes stale beer, anchovies, shalots, mace, cloves, wholepepper, and ginger. After simmering and being strained, it was to be cooled and bottled. It was commonly used for fish sauce or gravy.

The appendix contains many physical and medical remedies. Notice this "receipt to keep clear from bugs."

After shutting windows and doors, tack a blanket over each window, chimney and door. Open closets and drawers and place bedding on chair-backs. Lay the featherbed on a table. Light brimstone on charcoal and "get out of the room as quick as possible you can, or it will take away your breath."

## Engagement Announcements

By Gilda Gleim

Going to be a bride soon? Your first official step is to announce the engagement. You'll want a newspaper announcement and perhaps notes to close relatives or friends. You may want to entertain friends and announce the coming happy occasion.

You may choose to have a luncheon, tea, buffet supper, dinner, or dance. Maybe only your most intimate friends will be present. You may also invite other friends and relatives, and your mother's friends. Whoever is present, you'll want a novel way to announce that all important date!

There is a never ending number of ways which may or may not be original.

Streamers to each guest's place may reveal the proclamation on a tag when pulled away from the centerpiece. You can also have a centerpiece of corsages and boutonnières (if men are present), each attached to a ribbon extending to the guest's place. A pull on the ribbons breaks up this arrangement and announces the engagement!

How about tiny colonial bouquets of real or artificial flowers for each guest with a miniature scroll tucked inside bearing the tidings? The scroll could be placed in a corsage or boutonnières, too.

If you or the groom has a little brother or cousin, he might be dressed as a Town Crier. At the opportune time, he will enter ringing his bell and with a "Hear ye, Hear ye," will announce the news.

Maybe you'll enjoy making a pair of tiny yarn dolls for each one present. These, with a small paper heart bearing the message may be suspended from a little gold safety pin.

What about sending telegrams to each guest which will arrive at the correct moment during the party. Or maybe you could get little pellets or capsules, put a

little rolled piece of paper inside, and bake them in a cake so distributed that each one at your party will get one.

If you are handy with textile paints, you might like to paint a design and the message on the corner of a fringed square of Indian Head material and use these as napkins.

If you can find white circular candy mints resembling wedding cakes, you can frost colored rosettes on each with the inscription on a tiny mard imbedded in the icing.

Could you get a dime store diamond ring for each guest with a tag on it or make a beautiful crepe paper butterfly, (pastel crepe paper edged in black water colors)? Or a miniature doll dressed as a bride at each place with a note in her hand?

If you aren't having many guests and have lots of time, try making for each of your friends these little favors. Construct a little white paper house situated on a velvety green cardboard lawn with a snow-white toothpick picket fence around it. Use green sponge for trees and bushes. A minute mailbox in front will reveal a letter telling your secret.

Do you like animals? Make a paper mache one for each person and put a word or letter of the announcement on each and arrange them at the places on the table. Your friends will each have a part in announcing that special day.

If you are having a jello salad for lunch, you could make a dark layer of the jello and use marshmellow to write the names and date. After this layer has hardened, cover it with a clear layer of lighter colored jello so the writing is visible.

These are only a few possible ways of announcing your engagement. I'll bet already you've thought of many other good ideas just from these suggestions.



# Club Presidents Extend Welcome

You're back at Illinois  
With the orange and the blue.  
We're glad to see you here;  
We hope you like it, too!

Yes, it's a big, hearty greeting to all of you home ec students to welcome you to the University of Illinois for the first time, or back again, for another successful year. I want to wish you the best of luck in your academic work and to acquaint you with the home ec club, so that you, too, may find your niche in the campus activities.

All girls interested in home economics are given an opportunity for membership in the club. "Life Is Looking at You" has been chosen as the theme for this year. The monthly meetings will be built around interesting topics including "You're on the Make Every Minute," "Off to a Good Start," "That 'Plus' Quality," and "Keep Your Chin Up." These topics are studied through debates, discussions, and movies with emphasis placed upon student participation. The year's activities are terminated with an annual banquet in the spring where new officers and various awards are announced.

Plans were begun last year for All Ag Field Day, the campus sports festival, which is held each fall. The Plowboy Prom is the big event in the spring when everyone dons gingham and blue jeans for an evening of fun and frolic at Huff Gym.

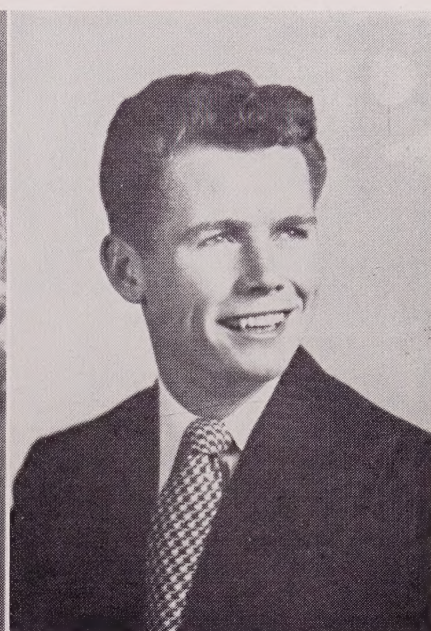
The other new officers of the Isabel Bevier Home Economics Club for 1949-50 will be Pat Feaster, vice-president; Pat Ringger, secretary; Peggy Lewis, treasurer; Mary Campbell, publicity chairman; Dorothy Giese, social chairman; and Louise Hodam, membership chairman. The club advisers are Miss Durrell and Miss Whitesel.

This promises to be another eventful year in your interesting and profitable college career. I hope you are enjoying the beginning of the school year and I'll be seeing you on campus and at all the home ec club functions. Make this your best year at Illinois!

Sincerely,  
Beverly Jean Gibbs  
President, Isabel Bevier  
Home Economics Club



**BEVERLY JEAN GIBBS**  
President Home Ec Club



**ARNOLD TAFT**  
President Ag Club

Welcome, Ag club members:

The Ag club extends to you and especially to all new members a cordial invitation to join and take part in the Ag club activities.

The Ag club holds its regular meetings on the third Tuesday of each month. At these meetings the necessary business is transacted and the rest of the meeting is devoted to furthering our education along some agricultural topic. In the past, we have had a considerable number of highly qualified outside speakers, but this year we plan to intermingle this type of program with debates from our own group and possibly a little more entertainment to liven up the meetings.

Now, I know that many of you are wondering what happened at those social programs that include the Home Ec girls. If University regulation will permit, we will certainly have at least two such meetings during the year. Another program jam-packed full of fun and entertainment will be our "Aggie Talent Show" to be held at the January meeting.

Aside from our regular Ag club meetings there are eight subsidiary clubs

that hold monthly meetings. The clubs and their meeting dates are as follows: Hoof and Horn the third Thursday, Field and Furrow the second Tuesday, Dairy Production the first Tuesday, Ag Education the fourth Thursday, Dairy Technology twice a month to be arranged, Horticulture the second Wednesday, Ag Economics the first Wednesday, and Poultry the fourth Tuesday.

Some other outstanding features sponsored by the Ag club or its subsidiaries are the all-ag field day, September 30, the Little International October 8, a joint Christmas party with the Home Ec club, the Plowboy prom, and a series of judging contests next spring, and the year being climaxed by the all-ag banquet with presentation of judging awards in May.

The Ag club has been for the past several years one of the outstanding clubs on the campus. I feel sure that with your interest and participation in our activities we will continue to keep it so.

Sincerely yours,  
Arnold Taft,  
President Ag Club.

## Aggies' Annual Farmyard Frolics

Few major clubs on the campus sponsor as many joint functions as the Home Ec and Ag clubs. More than one romance began at All-Ag Field day or after working together on a Plowboy prom committee. Such gatherings are marvelous places to meet fellow ag stu-

dents, but the value to us goes much further.

In attending the parties and programs we develop socially — learning to meet people, keep a conversation running (it's easy when you have so much in common), and finding out how other

students on campus are living and what they are doing. Perhaps the greatest benefit, however, can be derived from working on committees to plan the many functions the clubs sponsor.

Jointly we have the Ag-Home Ec  
(Continued on Page 8)



## New Course: Restaurant Management

"Let's go out to eat today." You probably couldn't begin to count the number of times that you have said this. Eating outside of the home has become a very popular pastime in the last few years. In fact, it is a three times a day ritual for many busy people. Enterprising businessmen saw opportunity in the public's insistent cry for more places to eat, and the restaurant industry came to the fore as one of the most thriving businesses in the country today. What catches a hungry public's eye more than an attractive drive-in or tearoom? This same industry, however, has analyzed its own faults and realizes that what it needs is more and better managers.

This is where you readers come in. A new course will be offered at the University starting this fall semester at the request of the restaurant management in Illinois. The 4-year curriculum has been approved by the University Board of Trustees and will be administered by the College of Agriculture. Miss Evelyn Smith, associate professor of institutional

management has been appointed to direct the work.

The first two years will be devoted largely to basic and general subjects including two semesters of chemistry. In the junior and senior years, specific courses in home economics and commerce are to be studied. In addition to the 4-year course, it is hoped that short courses and consultant services throughout the state can be developed.

You are probably asking yourself just what the difference would be between this new course and the institutional management course that is now offered in home economics. In the first place this new curriculum, since it is offered by the College of Agriculture instead of of the home economics department, is designed especially for men interested in becoming managers of restaurants, although women are just as welcome. While a few courses in the study of foods, dietetics, and institution management will still be given in the home economics department, the new curriculum

differs by offering more electives—25 to 34 hours. By proper selection of electives, a student may prepare for allied fields—a few of which are purchasing agents in large institutions, equipment and lay-out specialists with equipment firms, food inspectors in health departments, and food cost accounting.

Managers need to be trained in scientific, technological, and economic aspects of food production. To date, most of the trained personnel in food production and food service have been women trained in home economics. Most of the managers have been men, either owners or employees. They recognize the need for more information in food service and management.

Several students have already started training for work in restaurant management, and a number of inquiries have been received about the course. To begin, the fellows will attend classes with the girls. However, if the course becomes as popular as is anticipated there will be separate sections for men—that is if the fellows don't object. Additional information about the new curriculum in restaurant management may be obtained in Miss Evelyn Smith's office, 102D, Bevier Hall.

## ACTIVITIES . . .

(Continued from Page 7)

mixer, held very early in the year to help freshmen get acquainted with each other, our Christmas party complete with everything from singing to Santa Claus, and the co-recreation sometimes held after our meetings. Two of the bigger events are All-Ag Field day and Plowboy prom; positions on these committees are especially coveted—mostly because they're so much fun.

Let's begin with a resume of yearly events for the future modernized cook. Most home economists would object to that title, however, for the modern miss learns much more than just cooking. Each month the Home Ec club meeting is devoted to some particular phase of home economics with a major in that field fully responsible for arranging the program and seeing that it runs smoothly. The textiles and clothing division, especially, draws a large crowd with its style show of fashions that deserve the label, not home-made, but hand-made.

### Aid to Freshmen

Aid to freshmen is particularly stressed by the Home Ec club. During freshman week, the club sponsors a tea for all the (by then) befuddled home economics freshmen. Upperclassmen act as hostesses to give any advice that might help. We like to think it helps them feel as though they "belong" just a little more. It has the added advantage of helping them toward our goal of learning to be the "perfect hostess."

Home Ec club also sponsors a banquet every spring. Those who have won

special honors or awards are given recognition. It's always nice to realize how outstanding our fellow home economists have been, and the banquet is a particularly congenial time at which to do so.

Since Home Ec club concentrates on its monthly meetings during the year and has no subsidiary clubs as does the Ag club, we don't attempt to sponsor the many extra functions that the Ag club can. So the time has come to let their club take over the spotlight.

### The Agricultural Club

September is, in general, registration and book buying time along with recuperation from the "restful" summer at home on the farm. The Agriculture club contacts all new ag students in the general membership drive of the club.

Regular meetings of the subsidiary specialized clubs, Ag Economics, Ag Education, Dairy Production, Dairy Technology, Field and Furrow, Hoof and Horn, Horticulture club, and Poultry club, are held each month. Each club member is entitled to belong to any two subsidiary clubs. Both the Ag club and all subsidiary clubs are run entirely by and for the students.

### Little International in October

October is Little International month for the Aggies. Sponsored by the Hoof and Horn club, this event is a small one-day replica of the International Livestock exposition. During the afternoon, University livestock is exhibited by students who fit and show the animals for ribbons.

January is election month. The president and treasurer are elected for one

year and the vice president, secretary, and reporter are chosen for one semester. During January, the Ag club works with the University YMCA in sponsoring a career counseling service. Outstanding men from various fields and professions give short talks and then are available by appointment for interviews concerning job opportunities in that field.

### The All-Ag Field Day

All-Ag Field day is held early in the fall, from 4 to 12 p. m. Variety is the keynote. If you want to dance, there's dancing. If your outstanding feature is your appetite, how about a pie-eating contest? Or if you're fond of risking your neck, fellows, let a girl shave you—blindfolded.

### Plowboy Prom

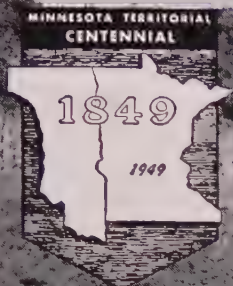
Plowboy prom, held in April, is perhaps the most unique dance of the school year. Prom attire is jeans, plaid shirts and gingham dresses, with prizes for the best costumes. The queen's price-less crown is a fugitive from a straw stack. The refreshment problem is adequately solved by huge box lunches prepared by the girl-half of the couple. Vegetables corsages complete the picture. Behind the scenes, however, committees have been hard at work for months arranging every detail. It's fun to learn organization and develop leadership this way.

During April and May, student judging contests are sponsored by the subsidiary clubs. Livestock, dairy cattle, grain, dairy products, meats, poultry, ag

(Continued on Page 12)



# Pioneers Conquered This Land With Their Hands...

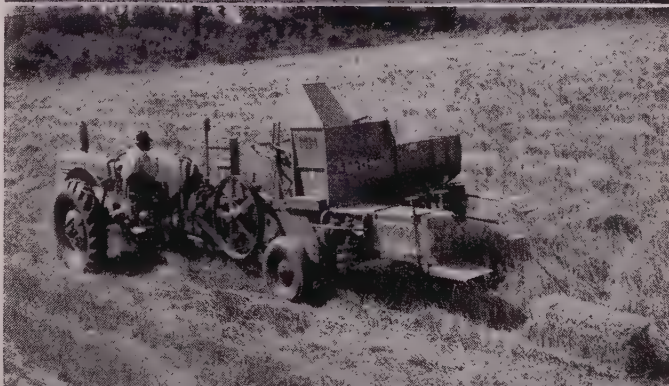
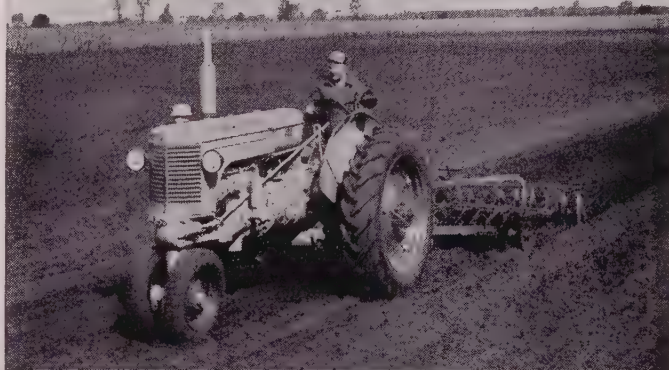


## Modern Machines Made It a Land of Plenty!

PIONEERS came with their axes, guns and hoes, their wooden plows, iron plows, steel plows, oxen and horses; and through hard work, unimaginable hardship and drudgery carved for themselves homes and farms from a rugged, new land. Their farming tools were in many respects quite the same as those used in Biblical times and not much better. But unlike the people of older times, men in this land had equality, opportunity, aggressive ingenuity, freedom from oppressive restrictions . . . time and opportunity to think and plan. And men prospered . . . invented machines to help do their tasks faster and better. The last 100 years was a period of sudden, swift progress . . . real progress . . . and it parallels the history of the farm machinery industry. More progress was made in the last fifty years than in all the ages before.

That progress continues under the American system of free enterprise and capitalism. Men who plan beyond tomorrow know that modern methods of agriculture will assure posterity of fertile, productive soil. That is why more and more progressive farmers demand MM MODERN TRACTORS, MACHINES, and POWER UNITS. They know that the MM trademark is the recognized symbol of highest quality since 1865. Today MM modern machines of proved dependability and economy . . . machines built to do the work with comfort, convenience, and safety enable the farmers of America to supply the world with food, fiber, and oils.

Today's farmers using modern methods and modern machinery are truly *Pioneers of Progress!*



PIONEERS OF PROGRESS

**MINNEAPOLIS-MOLINE**

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## Soybeans Need Good Storage Structures

By Albert Lundgren

Due to the influence of the war years, the soybean acreage soared to a record 11,000,000 acres producing 200,000,000 bushels in 1947 and 1948. With soybean harvest season here, we might ask ourselves what these figures mean in terms of storage. Because of this vast soybean production, considerable quantities are stored for long periods of time while others must be stored temporarily. It is estimated that 60 per cent of the crop is marketed within six to eight weeks in the fall and the other 40 per cent stored or used on the farm.

The rising importance of soybeans as a food and feed crop makes it necessary for us to store soybeans properly in order that the quality will be maintained. The storage of soybeans on the farm involves problems of properly designed structures, changes in germination and grade factors, moisture limits, insect infestation and control, and the conditioning of high moisture beans for safe storage. There are four types of structures that have proved very satisfactory in the storage of soybeans.

### Four Good Storage Structures

One type which may be used is the 12-sided prefabricated sectional wood bin. This bin has a diameter of 14 feet, a height of 8 feet, and a capacity of 1,100 bushels. The 12 sections are bolted together. The roof is made up of 12 panels that correspond to the 12 sections of the wall. At the apex of the roof is an opening for filling the bin. These bins have a wooden floor.

A second type which has found wide use on Illinois farms is the steel bin. Here panels of corrugated steel are fastened together with metal screws to form the walls. Steel panels are used for the roof with a small cupola cap for the opening at the top. They have a steel floor. The foundation for both the steel bin and the wooden prefabricated bin is the same, that is either a crushed rock fill or an earth fill with concrete blocks under the outer walls. The blocks are not necessary with the rock fill.

A third type of circular grain storage

bin was announced by farm building specialists in July. D. G. Carter, designer and professor of farm structures, says construction cost is less than 10 cents per bushel, not counting the floor. Two men can build the new round bin in a day. A new laminated type of building material made of wood and paper was used. It comes in sheets only one-seventh of an inch thick. The sheet has a wood veneer core, glued and covered with a tough asphalt-resin paper. With 12 of these sheets, 4 by 8 feet in size, you can make a round bin 14 feet in diameter and 8 feet high which will hold 1,000 bushels. Limited tests show the bin will stand the weight and pressure of stored grain. It can be expected to last five years if used properly. The bin should have either a wood or concrete floor. You can get blueprints and an instruction sheet for this new bin from the College of Agriculture, Urbana, for 15 cents.

A fourth type, probably the most common and found on nearly every farm in Illinois where grain is grown is the overhead bin in a double corn crib. Several farmers have asked if these bins are strong enough for soybeans. Bin walls and floors which will support wheat or shelled corn will support beans. If you do not at present have an overhead bin and are planning to build one, here are some guides to make it sufficiently strong. A 4 by 4 will carry over twice the load of a 2 by 4 because of the increased width. Depth, however, is the main consideration of the beam's strength, to double the width of a beam doubles its strength while doubling the depth increases the strength four times. Also, two beams, one 4 by 4 and the other 2 by 8, would contain the same amount of material, but the 2 by 8 would be twice as strong as the 4 by 4. Be sure you have plenty of bracing to prevent the bin from spreading.

### Keep the Moisture Out

Bin tightness is very important, as no advantage will result from storing dry grain if outside moisture can enter and increase the moisture content of the

stored grain. Many wood bins are not tight! Damage from outside moisture may range up to 30 bushels per bin with most of the moisture entering through cracks, defects, or joints in the siding. Large cracks are often caused by using green lumber which contracts during drying. Another place moisture can enter is where several adjacent siding boards end on the same studding. Often times moisture enters around the roof clips in steel bins. Leaky roofs are a frequent avenue for grain-spoiling moisture.

Can bins be moisture proofed? Water-proof paper has been used on bin walls but has not proved too satisfactory. Moisture also enters along the edges of the lining. The best water-proofing is that provided by tight fitting lumber or metal sheets.

Will painting reduce the temperature inside the bin? In Kansas and the Great Plains area painting of steel bins reduced temperature 10 to 12 degrees, but in Illinois very little change has been noticed. Painting though has a purpose. Painting will prolong the life of a building and also make a farmstead more attractive.

## SPITLER RETIRES

J. C. Spitler, associate director of extension service in agriculture and home economics and state leader of farm advisers, retired September 1.

Spitler said he intends to give more attention to his home farm where he was born and reared in Effingham county; however, he will make his home in Urbana.

In 1907, he graduated from the University and went home to start farming. Then in September, 1917, Spitler came to the University to assist in the War Food Production program. Through the work in this program he started the boost in the farm adviser program. At that time there were 27 farm advisers. As the plan of organization for food production gave encouragement and showed the need for farm advisers, the number of advisers increased greatly during 1918, 1919, and 1920.

July 1, 1917, Spitler was made assistant state leader of farm advisers. He continued in this capacity until October, 1930, at which time he became state leader.

He was made assistant director of extension service in agriculture and home economics of the College of Agriculture on September 1, 1937, and on September 1, 1943, he was made associate director.

For the advancement of agriculture through extension service, Illinois farmers owe considerable tribute to J. C. Spitler, the retiring state leader of farm advisers.

Illinois shares with Ohio and New York in the national production of crushed limestone.



These pictures show damage done by soybeans sticking to rotted lining paper, the effect of having several joints on the same stud, and the entrance of moisture around bolt clips.



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Freedom is everywhere in America. Poor youngsters can and do become rich and famous men. Folks speak the truth as they see it because opinion is molded by the public rather than by politicians. Freedom of worship and freedom from fear are accepted as a matter of course in a country bossed by the people.

Unfortunately, freedom isn't free. General Washington and his men made the down-payment at Valley Forge and Yorktown. For almost two hundred years, brave men have met the installments with sweat and blood. But keeping

our land free is no task for heroes alone—"Freedom is everybody's job!"

You strengthen America and make it more productive by mastering your job and giving a few extra licks to your daily tasks. You show your faith in the American way when you take time to vote in local as well as national elections. You make democracy work when you respect your neighbor's right not only to disagree with you, but to have his say.

Don't be content with flying the colors on Flag Day and parading on the Fourth of July—help to make our democracy a living, working reality 365 days of the year. We have inherited priceless freedom; as long as we keep it, the poorest of us is rich!



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A rider receives his trophy in the 1948 Little International. It is being presented to him by Mrs. Verlin Johnson.

### Little International . . .

## ON WITH THE SHOW!

By Lawrence "Zeke" Zuckerman

Rack on!

With this cry the announcer will send the five-gaited class of the third postwar Little International speeding around the Stock pavilion to climax the afternoon and evening show on October 8, 1949.

This is the third Little International since the war, but the show is not a new event on the campus.

#### First Little International

Back in the days following World War I the Hoof and Horn club sponsored its first Little International. The University then as now owned large numbers of livestock, and the show was planned to give the students practice in fitting and showing livestock.

In the interim between the two wars the show grew and attracted more and

more attention from the student body and from people connected with agriculture throughout the state. As the show expanded it included polo and jumping exhibitions by the ROTC cavalry unit and many student participating acts, such as greased pig catching contests as well as the livestock exhibition.

This steadily growing student activity was brought to a screeching halt in the fall of 1942 by the departure of a large portion of the student body to the armed forces.

#### Reviving the Little International

In the fall of 1947 when the ag campus had acquired its now familiar overpopulated condition, it was decided to revive the dormant Little International

and use the income to pay the expenses of the judging team which represents the University in intercollegiate livestock judging competition. It was decided to sponsor a livestock show in the early evening and follow this with a society and western horse show coupled with entertainment furnished by such free acts as the University tumbling team, a professors' goat milking contest, and music by the second regimental band.

The 1947 show was a success and the club agreed that the show should once again become one of the highlights of the ag school calendar. In 1948, the livestock exhibition was eliminated to avoid conflict with the Purdue-Illinois football game which was played the afternoon of the show. The horse show and entertainment committees devoted their energies to making a bigger and better horse show to stand alone without the livestock exhibition.

Next week on October 8, the Hoof and Horn club will present the 1949 Little International. Hope to see you there to help make this year's show the biggest in Little International history.

### ACTIVITIES . . .

(Continued from Page 8)

economics, and horticulture comprise the schedule.

At the All-Ag banquet, awards are made to the ag students who have won money, trophies, watches, plaques, ribbons, and other prizes in the many contests. A well known speaker addresses the group. For example, one year we heard Mr. Shuman, president of the IAA.

#### Your Ag Magazine

The Agriculturist is this magazine, put out six times a year by the students in Home Ec and Ag. It covers Ag college events and activities as well as the latest developments by the Experiment station. Best of all, it offers experience in journalism to Ag college students.

College Rural Life club meets once a month extending the activities of the county youth groups to the rural fellows and girls in college.

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# Two Illini Attend National 4-H Club Camp

By Dorothy Giese and Lyle Schertz

Each year for the past 19 years the National 4-H Club Camp has been in Washington, D. C. Here at this camp 4-H'ers from all states have received training and inspiration to further undertake responsibilities and leadership. This year's camp is no exception, for from June 15 to 22 every day was packed full of tours, speeches, discussions, and various other activities.

Our headquarters were at the Raleigh Hotel on the corner of Pennsylvania avenue and Twelfth street. Attending camp were four delegates, two boys and two girls, from each of 47 states and Puerto Rico. Each state was also represented by one or two state club leaders.

The other delegates from Illinois were Pauline McMillan, Pleasant Plains, and Robert Builta, LeRoy. Miss Florence Kimmelshue and Herbert E. Deason from the state extension staff also attended the camp.

Guests at the camp were 31 young people from 12 foreign countries who came here on the International Farm Youth exchange. They have been in the United States several months, and during that

time they have lived on American farms to study our way of living. With us the last few days of camp were the 31 United States delegates to European countries on the exchange program. In that group was Meta Marie Keller, last year's woman's editor of the Agriculturist, who was on her way to Norway.

## Advice from Secretary Brannan

"Know Your Government" was the theme, and it was stressed whenever possible. Nationally known speakers such as Secretary of Agriculture Charles F. Brannan and Mrs. Brannan, Assistant Secretary of State George V. Allen, Special Agent of the Federal Bureau of Investigation Bernard Suttler, and many others made us aware of our responsibilities as the citizens of tomorrow. Secretary Brannan in his address gave us the following advice that is well worth heeding:

"... Youth is a savings bank. You put into your experience, the things you see and learn, and all the rest of your life you keep drawing on that savings bank of experiences and knowledge. Now, and all your life, lead if you can, cooperate

always, and build your store of knowledge and experience. . . ."

After each of our assemblies, we divided into our small discussion groups where we discussed national and world problems and our responsibilities toward them. These small groups enabled us to contribute our own ideas and suggestions.

## 4-H Honored President

"Are you ready to go? We had better hurry or we will miss the bus." That sort of conversation was heard often during the week. Seven chartered buses with police escort took us on all our tours, the first of which was to the White House. President Truman came there to greet us, and an honorary 4-H pin was presented to him. Our official camp photograph was taken with him on the White House lawn.

There were some unexpected surprises, too. Pauline McMillan appeared on a television program. Bob Builta came in for one of his honors by being one of the leaders of discussions on such topics as "Has Scientific Advancement Brought About Appropriate Social Improvement?"

(Continued on Page 16)

## The Spot to Shop . . .

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**Notebooks**

**Laundry Cases**

**Fountain Pens**

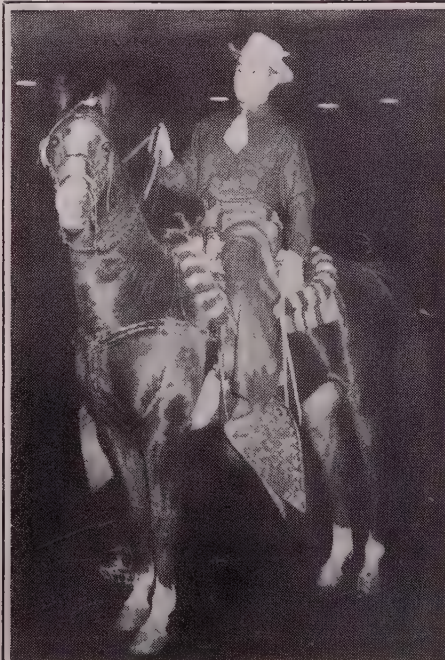
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## LITTLE INTERNATIONAL

**LIVESTOCK AND HORSE SHOWS**

Saturday, Oct. 8, 1949, U. of I. Stock Pavilion

5 to 10 P.M. — Refreshments

Tickets Sold at Door and Campus Places  
To Be Announced



## How Should a Person Buy Feeder Cattle?

By Archie Harper

A recent study completed by R. C. Ashby, professor of livestock marketing, and Walter J. Wills, assistant professor of agricultural marketing, covers, among others things, the costs involved in the movement of feeder cattle from producers to Illinois feed lots. These costs include shrink, freight, commissions, trucking, feed, financing costs, death losses, and dealers' profits. These costs vitally concern every purchaser of feeder cattle.

Just where should the farmer buy feeder cattle? Should he buy directly from the producer on the range? Should he buy at a terminal market? Should he buy from a local country dealer? What can he afford to pay at each of these points? These are questions this study should help the purchaser of feeders to answer better.

With an adequate knowledge of the costs involved in the differing methods of purchase, the feeder should be in a better bargaining position. One cost that must be kept in mind is that due to shrinkage in weight. Just how much do cattle shrink on their way from range to feed lot?

### Costs and Losses in Transit

Shrinkage varies greatly, depending on conditions under which the cattle are weighed and the length of time in transit. Cattle shrink in two ways. The shrink due to a loss of water and manure, called excretory shrink, is gained back rapidly. The conditions under which the cattle are weighed greatly affect this shrinkage.

In one case studied, a shipment of 956 pound steers weighed more arriving in Illinois than they did when weighed in Kansas! Quite unusual, to say the least, but they had been driven 28 miles in a hot dry wind, with the temperatures hovering at 100 degrees, before they

were weighed in Kansas. They had just been watered when weighed in Illinois.

The other shrink, tissue shrink, is an actual loss of flesh. The length of time the cattle are in transit greatly affects this. Shrinkage is especially important when the farmer buys on the basis of the cattle's weight on the range. Using these so called "pay weights" requires that the feeder accurately guess the amount of shrink if he is to buy at a reasonable price.

### Transit Management

The shrink is also important in that it materially affects the way the cattle start off in the feedlot. Very much tissue shrink results in "stale cattle" that do poorly in the feed lot. Cattle handled carelessly in shipping may actually result in death losses, which must also be kept in mind.

Regardless of their causes, death losses materially influence costs. Though death losses en route may be covered by commercial insurance, these losses must be paid for, and in the long run will be passed on to the buyers. Death losses may be unpredictable, but nevertheless must be kept in mind. Other costs, freight charges for instance, can be more easily figured.

Freight charges are important. Most cattle being hauled over 500 miles move by rail. Freight rates vary considerably. They increase with distance, but the cost per mile decreases with an increase in distance. Many stockyards have the privilege of through billing. For example, say Ashby and Wills, "The freight rate on cattle from Kansas City to certain areas in Illinois is 41 cents per hundred, but certain lots of cattle in this study came from Kansas City to Illinois for 26 cents per hundred on a through billing." This can mean quite a saving in freight.

Along with freight charges must be considered the charges for unloading of cattle for feed, water and rest, which must be done every 28 hours (or 36 hours, by written request of the shipper). This service usually costs five to 20 dollars per car each time it is unloaded.

While cattle moving over 500 miles usually go by train, trucks take care of most of the shorter hauls. Truckers charge according to weight and the hauling distance. In-transit insurance on trucked livestock varies with distance to market, but may also vary from market to market due to different losses in the past. In a study of forty truck loads of feeders shipped to a terminal market in the fall of 1947 it was found that 54 per cent of the total marketing

costs were transportation costs, and nearly 6 per cent was for in-transit insurance.

### Handling Charges

The charges of public stock yards must not be forgotten. Stock yards charge for use of chutes, driving to pens, water, weighing, and feed fed. Yardage is charged on a per head basis. Insurance charges for cattle while in the yards usually run approximately 7 to 15 cents per car.

Commission firms handle many feeder cattle in Illinois. They charge on a per head or per car basis. For buying feeders their charge runs approximately 15 to 20 dollars per car. They also sell feeders, but can not buy and sell the same lot of cattle. This is because they must (acting as agents as they do) buy the feeders as cheaply as they can for the buyer, but must sell as high as possible for the seller.

Many feeders are handled by country dealers and terminal market dealers. These buyers buy as well as they are able, assume varying amounts of the marketing costs, and try to sell at a price that will recover these costs, and in addition provide them with a profit. Some country dealers provide trucking services, both assembling and delivering the livestock.

Feeder cattle may be bought at auction. A fee is charged the seller for the selling operation, weighing, penning, and sometimes feed and water. Some auctions charge two to three per cent of the gross sales value, and some charge by the head. At an auction recently, for example, the commission on 187 feeder cattle averaged approximately 54 cents per hundredweight.

In view of these many cost factors, some of which the buyer can not possibly know, it is a very difficult job to buy those feeders at a fair price. If the feeder buys direct from the producer, he will pay directly all the marketing costs. If he buys from a dealer he will pay for them indirectly. In deciding from whom he will buy, in most cases the reliability and integrity of the seller are the two most important factors. If the feeder buys cattle infrequently, it often would be most profitable to pay a trustworthy buyer to buy for him, conclude Ashby and Wills in their report.

### Professor of Soils Leaves

F. H. Crane, professor of soil fertility, has recently resigned effective September 1. Crane plans to return to his farm at Avena, Ohio. Avena is his original home community.

Coming to the University February 15, 1921, Crane has been working continuously teaching soils and doing research. He received his B. S. from Ohio State and his M.S. from the University of Paris, France.



Feeder steers at the Dixon Springs Experiment Station.



# LIVESTOCK GUIDE

## Severson Farms Durocs

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**4-H CAMP . . .**

(Continued from Page 13)

and "Is the Veto a Real Power or Just a Threat?" Dorothy Giese had the privilege of being escorted by a top FBI agent of the Federal Bureau of Investigation.

The day we toured the Capitol, Congress was not in session, but our Illinois delegation returned another day to see a session of the Senate. The Capitol at night was one of the most beautiful sights with floodlights shining on the dome and the American flag topping the dome.

On Sunday we went to Annapolis, Maryland, to have our church service in the beautiful ivy covered chapel at the United States Naval academy. That afternoon we visited the Tomb of the Unknown Soldier. A wreath was placed upon it by two 4-H members, and we watched the changing of the guard.

**Visit to Mount Vernon**

Included in our tours was a boat trip

down the Potomac to Mount Vernon, George Washington's home. The mansion occupies a beautiful sight overlooking the Potomac. We went through the mansion and saw most of the original furnishings. Surrounding the home are greenhouses, gardens, and many other buildings, giving the appearance of a small village. The tomb containing the remains of George and Martha Washington is nearby.

We also visited the National Agricultural Research center, Beltsville, Maryland, where research in farming and home economics is carried on. A great many of the other national shrines were visited.

The speakers' messages, the discussions, and tours gave us a better knowledge of our government. Our week of living in Washington, the law making center of our country, made each of us feel a little closer to our democratic form of government. I am sure the delegates to the nineteenth National 4-H

Club camp returned to their own homes with new enthusiasm to be better citizens of their own communities, states, and nation.



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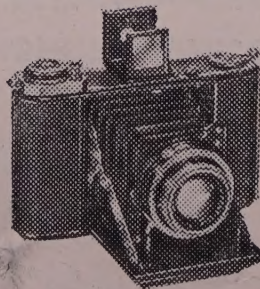
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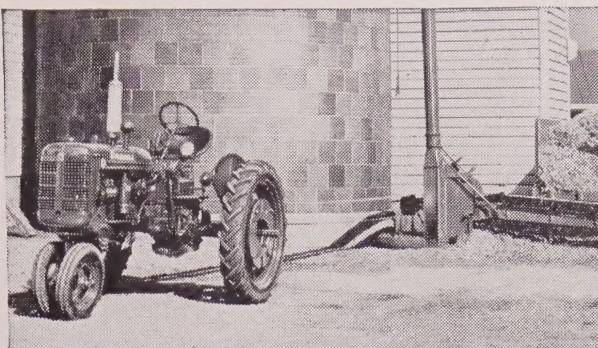


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# FIVE

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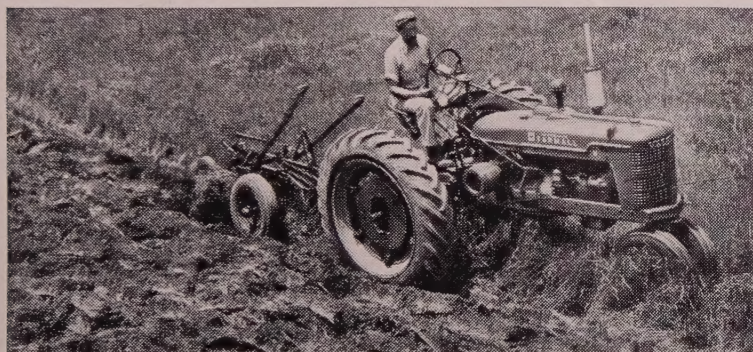


## Farmalls

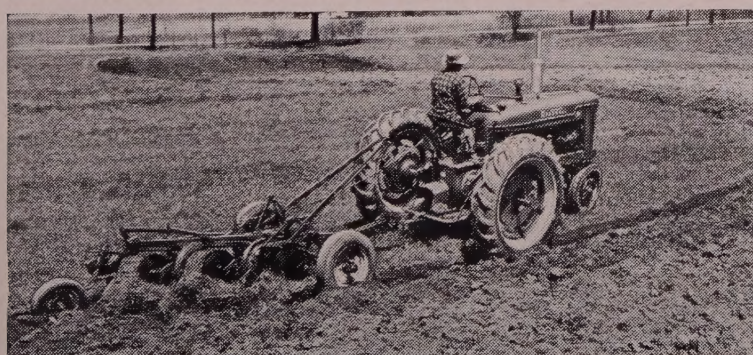
## ...to save soil on every farm



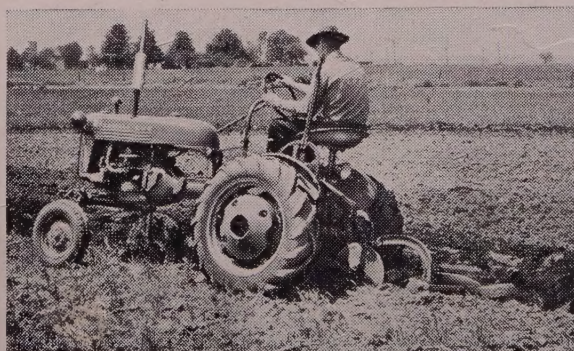
The 1-plow Farmall Super-A tractor plows 3 to 6 acres a day; has standard tread, Farmall Touch-Control. Gives you five-way power.



The popular Farmall H is a full 2-plow tractor. Interchanges many mounted implements with Farmall M tractor. Plows 9 to 11 acres a day.



The Farmall Cub tractor does all jobs on farms up to 40 acres, many jobs on big farms. Plows 3½ acres a day. Does many jobs twice as fast as horses.



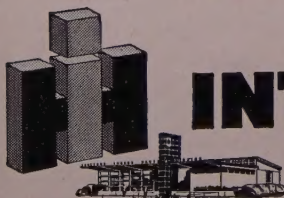
With five Farmall tractors to choose from, *every* farmer can pick the right Farmall or combination of Farmalls for his farm. No farm need be *under* powered, none *over* powered.

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